

**CHAPTER II  
PRELIMINARY DESIGN**



**MEMORANDUM**

**Missouri Department of Transportation**

**Division  
Location**

**TO:** GHQ-Environmental Section (1 copy)  
GHQ-Cultural Resources (1 copy)

**CC:** State Design Engineer w/o attachments

**FROM:** Transportation Project Manager

Note: a project scope change  
requires the RES to be  
resubmitted regardless of  
Project stage

**DATE:**

**SUBJECT:** Route \_\_\_\_\_, \_\_\_\_\_ County  
Project Description-termini (no stations)  
Job No. \_\_\_\_\_  
Request for Environmental Studies

Program Year: PE \_\_\_\_\_ ROW \_\_\_\_\_ Const \_\_\_\_\_ Letting \_\_\_\_\_

Cultural/Environmental Core Team Member: \_\_\_\_\_  
Request Cultural/Environmental Core Team Member? Yes \_\_\_\_\_ No \_\_\_\_\_

Describe project improvements: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Stage:      Scoping      Loc./Concp.      Prel. Plan      R/W      Final Design

Changes to project since last RES submittal: Yes-If yes, explain      No \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Explain purpose of request:(i.e. NEPA classification, prelocation meeting date, preliminary plan or plans availability, is this an emergency project due to weather, or any other information to help in evaluating the project).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is this project a breakout from a previous or larger project? If yes, what is the original project number(s)?  
\_\_\_\_\_

Est. of additional R/W(acres) \_\_\_\_\_ Easements: temporary(acres) \_\_\_\_\_ permanent(acres)\_\_\_\_\_

No. of Displacements: Residential \_\_\_\_\_ Traffic: ADT construction year \_\_\_\_\_  
Commercial \_\_\_\_\_ ADT design year \_\_\_\_\_

**Request for Environmental Services**

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Known Concerns: Provide information you have about these resources that you may know from your observation of the area. Include information from as-built plans.

Parkland

(i.e. city parks, boat access, sporting facilities, picnic tables, school playgrounds,...)

Wetland/404 Permit

(i.e. streams, areas of standing water, culvert extensions, bridge repair/rehab)

Farmland

(Is this within city limits?)

Floodplain

(FEMA buyout property, 100-year floodplain)

Threatened & Endangered Species

Haz Waste (i.e. structures indicating previous or current service stations, dump sites, other visual observations that would indicate hazardous material activities)

Cultural Resources (i.e., buildings, bridges, structures, archaeological sites, cemeteries, historic locations, include photomosaics if available)

Comments:

**Date Desired:** (not ASAP) \_\_\_\_\_

For more information contact:

Environmental Section (573) 526-4778

Cultural Resources Section (573) 526-3597

Required Information:

Scoping            location map (county map) & topographic map showing project limits– include quadrangle name (2 copies each, 8 1/2 x 11)

Loc/Concp.       Same as above & pre-plan sheets or other preliminary maps showing alternatives if available

Prel. Plan        same as above (if not included in previous RES submittal) & 11 x 17 prel. plan sheets (2

**Request for Environmental Services**

## DUAL

### CHAPTER II PRELIMINARY DESIGN

copies each)

R/W same as above (if not included in previous RES submittal) & 11 x 17 R/W plan sheets  
(2 copies each)

Final Design 11 x 17 copy of final plans (Only necessary if project scope change after R/W stage)

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**REQUEST FOR ENVIRONMENTAL SERVICES**

**Program Year**

Fill in Preliminary Engineering, Right of Way, and Construction years from the approved program, and the month and year of letting, if known.

**Cultural/Environmental Core Team Member**

If you have a Core Team Member assigned, list name. To request Cultural/Environmental Core Team Member indicate yes. No indicates no Core Team for the project.

**Describe Project Improvements**

Explain what improvement the project will provide.

**Project Stage**

Check the stage for which you need the information. As the project develops, submit any additional information that becomes available (even between stages) to keep specialist up to date and their assessments accurate.

**Changes to project since last RES submittal**

A change in the project scope will need to be evaluated by the Environmental/Cultural Resource staff. Project scope change could affect NEPA classification, regulatory permits or approvals previously received. A change in scope could possibly invalidate previous specialist assessments for the project. Describe the change in enough detail so that the specialists can make an accurate evaluation.

**Explain purpose of request**

Insert any information that you may have to further explain the purpose of this request, such as: NEPA classification, prelocation meeting date, the need for public hearing, is this an emergency project due to weather, or any other information to assist the Environmental/Cultural Resource staff in evaluating the project.

**Is this project a breakout from a previous or larger project**

Indicate if the project is a breakout from a previous or larger project. If the larger (root) project has already been evaluated and given a NEPA approval and/or regulatory permits/approvals, there may be no need to reevaluate the project.

**Additional R/W estimates in acres (including permanent and temporary easements)**

Required information for the Environmental/Cultural Resource staff to fully screen the project area and request the correct NEPA classification from FHWA.

**Displacements**

Indicate the type of displacements and how many. Required information for the Environmental/Cultural Resource staff to fully screen the project area and request the correct NEPA classification from FHWA.

**ADT Construction Year and ADT Design Year**

Required information for the Environmental/Cultural Resource staff to fully screen the project area and request the correct NEPA classification from FHWA to complete any needed environmental document.

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### Parkland

Section 4(f) of the Department of Transportation Act protects public parkland. Federally funded transportation projects cannot impact such parkland unless there are no feasible and prudent alternatives. Some public parks have also been purchased or improved by funding from the Land and Water Conservation Fund (LWCF) Act. Our proposed use of these lands for transportation purposes requires extensive coordination with other state and federal agencies. Any park project funded by the LWCF Act is protected by an established Section 6(f) boundary, encompassing the entire facility or portions of the facility. Let the Environmental Section-Design Division know on the form or by email correspondence if any public parks are known or suspected to exist in the project area. Be aware that temporary, permanent, and aerial easements on parkland are all subject to Section 4(f) and Section 6(f) considerations.

### Wetlands

Wetlands are regulated under Section 404 of the Clean Water Act as well as other laws. The U.S. Army Corps of Engineers (COE) is the principle agency that considers project impacts to wetlands.

Wetlands are “water of the U.S.” and should be avoided if possible. Excavations or placements of fill in jurisdictional wetlands are activities that are regulated by the COE. Data needed from the districts to assess possible wetland impacts are:

- Aerial photographs, photos of the project area, and photo logs are helpful. At the preliminary plan stage, a copy of the manuscript for portions of the project may be necessary.
- If replacement wetlands are required as mitigation, the district may be asked to assist in locating potential wetland mitigation sites.

### Section 404

The form, “Information for 404 Permit Applications,” available as a Microsoft DE-Bridge Form, should be submitted for any stream crossing.

The Wetland Specialist in the Headquarters handle permit submittal for Section 404. They will assess the impacts to jurisdictional wetlands and formulate a wetland mitigation plan, if necessary. In order to process a Section 404 permit that involves wetlands, the following information is needed from the district:

- After consultation with the appropriate wetland specialist, the district may be asked to prepare and submit a plan view showing impacted wetland areas.
- If mitigation is required, the district should work with the environmental studies staff to locate potential mitigation sites, and prepare location maps of potential mitigation sites.
- After the preferred mitigation site is selected, the district should work with the environmental section staff to prepare a plan view showing finished grades and other construction improvements to the mitigation area, as appropriate.
- After approval of the wetland mitigation plan, the environmental section staff will develop special provisions to be included in the construction contract. The district will be given the opportunity to review the mitigation plan and special provisions. The mitigation plan or special provisions may include commitments that would affect both construction and maintenance activities.

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### Farmland

The Farmland Protection Act requires that all federally funded projects be assessed for the potential to convert farmland to non-farming purposes. Farmland impact rating forms should be completed in accordance with Chapter II of the Project Development Manual (PDM) and forwarded for the Agriculture/Landuse Specialist. The form is then forwarded to the Natural Resources Conservation Service (NRCS) for agency review.

### Threatened or Endangered Species

The Endangered Species Act and other Federal laws protect plants and animals that may be in danger of becoming extinct. The act also protects their habitat. To address this issue, it is necessary to describe the project with study area or alternates drawn accurately.

### Hazardous Waste

There are several laws and regulations that deal with hazardous or regulated waste and both underground and aboveground storage tanks. To assess the potential for impacting hazardous or regulated waste, a manuscript for the project area with project alternatives drawn accurately is needed. Information of present or past land use activities, which may produce hazardous waste near the project, with relevant names and addresses and location of those facilities will be provided by the district office.

### Cultural Resources

Screening – Screening provides a cultural resource overview for in-house planning purposes only. The information is not submitted to Missouri State Historic Preservation Office (SHPO) for review and the process does not complete Section 106 cultural resources requirements for a particular project. Screening consists of a background check of previously reported archaeological sites, historic bridges, or historic structures. Screening is normally done at the conceptual/location stage of a project or may be requested for the initial NEPA classification.

Clearance – Clearance refers to completing all cultural resources work required for a project and obtaining concurrence from the SHPO that Section 106 requirements have been satisfied. With this SHPO concurrence, no further cultural resources work is necessary before project construction can proceed. Additional required information in an RES requesting cultural resources investigations for Section 106 clearance are as follows:

- 1) Landowner permission allowing MoDOT Cultural Resource crews' access to the proposed project ROW and easements;
- 2) Photographs of all structures and bridges in the project area with these photographs being keyed into a map or project plans.

Cultural resources work is conducted in phases depending on the absence or presence of cultural resources affected by the project. A **Phase I** cultural resources survey is an intensive, systematic investigation intended to identify all cultural resources that may be affected by the proposed project. If archaeological sites are located, a **Phase II** archaeological investigation consisting of limited subsurface examination of an archaeological site may be required to determine if the site contains intact and significant archaeological remains. Phase II archaeological investigations almost always include some ground disturbance from manually dug test units, hand auger tests, or

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limited backhoe trenches. If the site is found to contain significant archaeological remains, it is considered to be eligible to the National Register of Historic Places (NRHP) and may require Phase III excavation or data recovery if project impacts to the site cannot be avoided. In some cases Job Special Provisions or JSPs can be included in the construction contract that allows project construction to begin even if all Phase III archaeological investigations are not yet completed. If the project will impact a building or bridge that has been determined NRHP-eligible, the structure or bridge typically has to be photographically and archivally documented prior to project construction. In some cases, the structure or bridge may have to be advertised to the public and made available for reuse by others or at another location.

**Date Desired**

This should be as realistic as possible. If this date is not possible, a new mutually agreeable date will be set. ASAP will not be accepted.